REMARKS

Claims 1-14, 16-33, 35-42, 44, and 45 are pending in the present Application. Claims 10, 39, and 45 have been cancelled, Claims 1, 33, 38, 42, and 44 have been amended, leaving Claims 1-9, 11-14, 16-33, 35-38, 40-42, and 44 for consideration upon entry of the present Amendment.

Claim 1 has been amended to wherein the lands and grooves comprise a pitch of about 0.05 to about 0.35 micrometer. Support for this amendment can at least be found in Paragraph [0108] of the Specification as originally filed. Claim 1 has also been amended to contain the term "and wherein the blend is substantially free of visible particulate impurities" from claim 10.

Claim 33 has been amended to contain the term "wherein the substrate layer comprises a surface comprising lands and grooves and wherein the lands and grooves comprise a pitch of about 0.05 to about 0.35 micrometer." Support for this amendment can at least be found in Paragraph [0108] of the Specification as originally filed.

Claim 38 has been amended to wherein the lands and grooves comprise a pitch of about 0.2 to about 0.35 micrometer. Support for this amendment can at least be found in Paragraph [0108] of the Specification as originally filed. Claim 38 has also been amended to contain the term "and wherein the blend is substantially free of visible particulate impurities" from claim 39.

Claim 42 has been amended to contain the term "wherein the lands and grooves comprise a pitch of about 0.05 to about 0.35 micrometer." Support for this amendment can at least be found in Paragraph [0108] of the Specification as originally filed.

Claim 44 has been amended to contain the term "wherein the blend is substantially free of visible particulate impurities" from claim 45.

No new matter has been introduced by these amendments or new claims. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 103(a)

Claim 42 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over United States Patent No. 4,889,756 to Barzynski, et al. (Barzynski) in view of United States Patent No. 6,183,829 to Daecher, et al. (Daecher). Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Barzynski generally discloses a laser-optical recording material comprising (a) an optically transparent and isotropic, homogeneous substrate which is free of orientation birefringence and (b) one or more amorphous, thermally alterable recording layers (Abstract). Daecher generally discloses an apparatus for formation of a plastic sheet in a continuous fashion, as well as optical and electronic display applications (Abstract).

Claim 42 of the present application requires the data storage medium to comprise a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate layer comprising a surface comprising a pitch of about 0.05 to about 0.35 micrometer wherein data on the data layer is able to be read using a laser having a wavelength of less than about 420 nanometers and a lens having a numerical aperture greater than about 0.8; and wherein the poly(arylene ether) resin and poly(alkenyl aromatic) resin blend is substantially free of visible particulate impurities. It is our position that Barzynski and Daecher, either alone or combined, fail to render the claim obvious for the following reasons.

First, Barzynski fails to teach or suggest a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate having a pitch of about 0.05 to about 0.35 micrometer. Daecher further fails to teach or suggest such a requirement. It is noted that Daecher discloses

> The width and pitch of the spiral groove depend on the construction of the particular medium but are typically in the 0.1 to 10 micron range, and preferably in the 0.4 to 2 micron range. The spot sizes of encoded information are typically in the 0.4 to 10 micron range.

(Daecher, col. 7, lines 19-24). The definition of "pitch" in the present application is "the pitch is measured from the center of the groove to the center of an adjacent groove" (Specification, Paragraph [0108]). Therefore, the pitch is the total diameter of the land, half the diameter of the groove on one side of the land and half the diameter of the grove on the other side of the land. As Daecher teaches the spot size of 0.4 to 10 microns, the smallest diameter of the land is 0.4 micrometers. The dimension of the land, plus the dimensions of half the diameter of the grooves on either side of the land results in a pitch of greater than 0.35 micrometer. Thus, Daecher fails to teach or suggest the required pitch size of Claim 42.

Second, Barzynski fails to teach or suggest a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate having data that can be read by a laser having a wavelength of less than about 420 nanometers and a lens having a numerical aperture greater than about 0.8. Daecher further fails to teach or suggest such a requirement.

As Barzynski and Daecher, either individually or combined fail to teach or suggest the required limitations of Claim 42, the claim has not been rendered obvious. Accordingly, reconsideration and removal of the rejection is respectfully requested.

Claim 42 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over United States Patent No. 4,845,142 to Niwano, et al. (Niwano) in view of Daecher. Applicants respectfully traverse this rejection.

Niwano generally discloses optical devices such as optical disk substrates and lenses which are prepared by molding a resin composition (Abstract).

It is our position that Niwano and Daecher, either alone or combined, fail to render the claim obvious for the following reasons.

First, Niwano fails to teach or suggest a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate having a pitch of about 0.05 to about 0.35 micrometer. Daecher further

fails to teach or suggest such a requirement.

Second, Niwano fails to teach or suggest a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate having data that can be read by a laser having a wavelength of less than about 420 nanometers and a lens having a numerical aperture greater than about 0.8. Daecher further fails to teach or suggest such a requirement.

As Niwano and Daecher, either individually or combined fail to teach or suggest the required limitations of Claim 42, reconsideration and removal of the rejection is respectfully requested.

Claims 1-3, 5-9, 13, 14, and 16-18 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Niwano in view of WO 02/086882 (US 2004/00760083) to Nishikawa, et al. (Nishikawa). Applicants respectfully traverse this rejection.

Nishikawa discloses a magneto-optical recording medium comprising a polycarbonate substrate having lands and grooves and wherein the lands and grooves comprise a pitch of about 0.54 micrometer (Nishikawa, Paragraphs [0166] to [0167]).

As Claims 2-3, 5-9, 13, 14, and 16-18 all ultimately depend from Claim 1, only Claim 1 will be discussed in the following section. Claim 1 requires the data storage medium to comprise a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate comprising a pitch of about 0.05 to about 0.35 micrometer. It is our position that Niwano and Nishikawa, either alone or combined, fail to render the claim obvious.

Niwano fails to teach or suggest a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate having the required pitch. Furthermore, Nishikawa also fails to teach or suggest a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate, let alone a a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate having a pitch of about 0.05 to about 0.35 micrometer.

Particularly, the requirement of a pitch of about 0.05 to about 0.35 micrometer is significantly different from the large pitch disclosed in the references (0.54 micrometer, Nishikawa and 1.6 micrometers, Niwano). Such large pitch sizes disclosed in the references would not lead one of ordinary skill in the art to prepare *even narrower* pitch sizes, especially as

this would require more exacting processing conditions to form the lands and grooves and would require more precise surfaces of the substrate in order to allow for the distinct set of lands and grooves to provide data storage.

Since both Niwano and Nishikawa fails to teach or suggest a data storage medium prepared from a poly(arylene ether) resin/poly(alkenyl aromatic) resin substrate having lands and grooves comprising a pitch of about 0.05 to about 0.35 micrometer, the references fail to teach or suggest each and every claim limitation of Claim 1. Reconsideration and removal of the rejections over Claims 1-3, 5-9, 13, 14, and 16-18 is respectfully requested.

Claims 1-3, 5-14, 16-18, and 42 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Niwano and Nishikawa, further in view of Daecher. Applicants respectfully traverse this rejection.

As mentioned above, neither Niwano nor Nishikawa teaches or suggests a data storage medium prepared from a poly(arylene ether) resin/poly(alkenyl aromatic) resin substrate having lands and grooves comprising a pitch of about 0.05 to about 0.35 micrometer, which is a requirement of both Claim 1 and 42. Daecher also fails to provide the missing teaching. Accordingly, reconsideration and removal of the rejections to the claims are respectfully requested.

Claims 1-9, 13, 14, 16-21, 27-30 and 44 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Niwano and United States Publication No. 2003/0113671 to Ohgo (Ohgo). Applicants respectfully traverse this rejection.

Ohgo generally discloses a manufacturing method for an optical disc master, in which a photoresist layer is formed on a substrate, and then a laser beam having a wavelength of 200 to 300 nm is exposed to the photoresist layer to form thereon a latent image corresponding to an information signal, and then the latent image is developed with an alkaline aqueous solution to form a convex-concave pattern (Abstract).

However, Ohgo does not disclose a substrate layer comprising poly(arylene ether)/poly(alkenyl aromatic) blends, nor does it teach or suggest that the substrate be made from

a poly(arylene ether)/poly(alkenyl aromatic) blend substantially free of visible particulate impurities as is required by independent Claims 1 and 44.

Furthermore, Niwano also fails to teach or suggest that the substrate be prepared from a blend of poly(arylene ether) resin/poly(alkenyl aromatic) resin that is substantially free of visible particulate impurities. Accordingly, removal of the rejections is respectfully requested.

Claims 1-3, 5-14, 16-21, 27-30, 42, and 44-45 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Niwano and Ohgo, further in view of Daecher. Applicants respectfully traverse this rejection.

Independent claims 1, 42, and 44 require the substrate be made from a poly(arylene ether)/poly(alkenyl aromatic) blend substantially free of visible particulate impurities. Furthermore, these claims require the substrate to have lands and grooves comprising a pitch of about 0.05 to about 0.35 micrometer. It is our position that Niwano, Ohgo, and Daecher, either alone or combined, fail to render independent Claims 1, 42, and 44 obvious.

Neither Niwano nor Daecher teach or suggest a poly(arylene ether)/poly(alkenyl aromatic) blend substrate having a pitch of about 0.05 to about 0.35 micrometer. Niwano does teach aromatic vinyl monomer and polyphenylene ether disk substrates, however, the narrowest pitch size taught is 1.6 micrometers. Daecher only generally teaches polystyrene-polyphenylene oxide resins as one choice in a large laundry list of resins that can be used to form a plastic sheet (column 14). Daecher, however, fails to teach or suggest the very narrow pitch size that is required by the instant claims. Both of the pitch sizes of Niwano and Daecher are *significantly* larger than the required about 0.05 to about 0.35 micrometer of Claims 1, 42, and 44. One of ordinary skill in the art would not be motivated to prepare a disk substrate, prepared from a poly(arylene ether)/poly(alkenyl aromatic) blend, having a narrower pitch size than that disclosed in Daecher or Niwano. There is no indication that such a blend would successfully be formed into disks having such stringent pitch dimensions.

It is noted that Ohgo does teach the preparation of an optical disk master having a pitch size of 0.32 micrometers. However, Ohgo only discloses acrylic resin and polycarbonate resin as the only materials that can be used for the substrate. There is no teaching or suggestion that

poly(arylene ether)/poly(alkenyl aromatic) could be prepared into substrates having the narrow pitch required by the instant claims. Furthermore, there is no expectation that poly(arylene ether)/poly(alkenyl aromatic) could be successfully used with the Ohgo disk master as Niwano and Daecher only teach substrates having much larger pitch size. Accordingly, reconsideration and removal of the rejections are respectfully requested.

Claims 1-14, 16-21, 25, 27-31, 38-41, and 44 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Niwano and Ohgo, further in view of United States Publication No. 2003/0003261 to Saito, et al. (Saito). Applicants respectfully traverse this rejection.

Independent claims 1, 42, and 44 require the substrate be made from a poly(arylene ether)/poly(alkenyl aromatic) blend substantially free of visible particulate impurities. As mentioned above, neither Niwano nor Ohgo teach or suggest such a requirement. Furthermore, Saito also fails to teach or suggest a poly(arylene ether)/poly(alkenyl aromatic) substrate made from a blend substantially free of visible particulate impurities. Reconsideration and removal of the claims is respectfully requested.

Claims 1-14, 16-21, 25, 27-31, 33, and 35-45 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Niwano and Ohgo, in view of Saito, further in view of Daecher. Applicants respectfully traverse this rejection.

As mentioned above, Niwano, Ohgo, and Daecher fail to render independent Claims 1, 42, and 44 obvious as there is no teaching of a poly(arylene ether)/poly(alkenyl aromatic) blend substrate having a pitch of about 0.05 to about 0.35 micrometer. Furthermore, there would be no expectation of success to use poly(arylene ether)/poly(alkenyl aromatic) to prepare a substrate having such an exacting pitch size. Independent Claims 33 and 38 also require the poly(arylene ether)/poly(alkenyl aromatic) blend substrate to have a pitch of about 0.05 to about 0.35 micrometer. Saito does not remedy the missing teaching as Saito also does not teach or suggest poly(arylene ether)/poly(alkenyl aromatic) substrates. The Applicants respectfully request removal of the rejections.

Claims 1-14, 16-31, 33, 35-42 and 44-45 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Niwano and Ohgo, in view of Saito and Daecher, further in view of JP 2000-315891 to Ueda et al. (Ueda) or EP 1178068 to Ito et al. (Ito) combined with United States Publication No. 2001/0039313 to Ogawa et al. (Ogawa). Applicants respectfully traverse this rejection.

As discussed immediately above, the combination of Niwano, Ohgo, Saito and Daecher fail to render independent Claims 1, 33, 42, and 44 obvious there is no teaching of a poly(arylene ether)/poly(alkenyl aromatic) blend substrate having a pitch of about 0.05 to about 0.35 micrometer. Furthermore, there would be no expectation of success to use poly(arylene ether)/poly(alkenyl aromatic) to prepare a substrate having such an exacting pitch size. Ueda, Ito, and Ogawa do not remedy the missing teaching as they also do not teach or suggest poly(arylene ether)/poly(alkenyl aromatic) substrates. Reconsideration and removal of the rejections is respectfully requested.

Claims 1-14, 16-33, 35-42 and 44-45 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Niwano, Ohgo, inview of Saito, Daecher, Ueda or Ito, and Ogawa, further in view of United States Publication No. 2002/0176957 to Mino et al. (Mino), or WO 03/021588 to Dris et al. (Dris). Applicants respectfully traverse this rejection.

As discussed immediately above, the combination of Niwano, Ohgo, Saito, Daecher, Ueda, Ito, and Ogawa fail to render independent Claims 1, 33, 42, and 44 obvious there is no teaching of a poly(arylene ether)/poly(alkenyl aromatic) blend substrate having a pitch of about 0.05 to about 0.35 micrometer. Furthermore, there would be no expectation of success to use poly(arylene ether)/poly(alkenyl aromatic) to prepare a substrate having such an exacting pitch size. Mino and Dris do not remedy the missing teaching as Mino fails to teach or suggest poly(arylene ether)/poly(alkenyl aromatic) substrates and Dris fails to teach any pitch size. Reconsideration and removal of the rejections is respectfully requested.

Claim 42 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over United States Publication No. 2002/0094455 to Feist, et al. (Feist) in view of Daecher.

Claim 42 of the present application requires the data storage medium to comprise a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate layer comprising a surface comprising a pitch of about 0.05 to about 0.35 micrometer wherein data on the data layer is able to be read using a laser having a wavelength of less than about 420 nanometers and a lens having a numerical aperture greater than about 0.8; and wherein the poly(arylene ether) resin and poly(alkenyl aromatic) resin blend is substantially free of visible particulate impurities. It is our position that Feist and Daecher, either alone or combined, fail to render the claim obvious for the following reasons.

First, Feist fails to teach or suggest a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate having a pitch of about 0.05 to about 0.35 micrometer. Daecher further fails to teach or suggest such a requirement.

Second, Feist fails to teach or suggest a poly(arylene ether) resin and poly(alkenyl aromatic) resin substrate having data that can be read by a laser having a wavelength of less than about 420 nanometers and a lens having a numerical aperture greater than about 0.8. Daecher further fails to teach or suggest such a requirement.

As Feist and Daecher, either individually or combined fail to teach or suggest the required limitations of Claim 42, the claim has not been rendered obvious. Accordingly, reconsideration and removal of the rejection is respectfully requested.

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Feist, Daecher, and Ohgo. Applicants respectfully traverse this rejection.

Independent claims 1, 42, and 44 require the substrate be made from a poly(arylene ether)/poly(alkenyl aromatic) blend substantially free of visible particulate impurities. Furthermore, these claims require the substrate to have lands and grooves comprising a pitch of about 0.05 to about 0.35 micrometer. It is our position that Feist, Ohgo, and Daecher, either alone or combined, fail to render independent Claims 1, 42, and 44 obvious.

Neither Ohgo nor Daecher teach or suggest a poly(arylene ether)/poly(alkenyl aromatic) blend substrate having a pitch of about 0.05 to about 0.35 micrometer. Daecher only generally

teaches polystyrene-polyphenylene oxide resins as one choice in a large laundry list of resins that can be used to form a plastic sheet (column 14). Daecher, however, fails to teach or suggest the very narrow pitch size that is required by the instant claims.

Feist also fails to teach a pitch size lower than 0.8 micrometer. Both of the pitch sizes of Feist and Daecher are *significantly* larger than the required about 0.05 to about 0.35 micrometer of Claims 1, 42, and 44. One of ordinary skill in the art would not be motivated to prepare a disk substrate, prepared from a poly(arylene ether)/poly(alkenyl aromatic) blend, having a narrower pitch size than that disclosed in Daecher or Feist. There is no indication that such a blend would successfully be formed into disks having such stringent pitch dimensions.

It is noted that Ohgo does teach the preparation of an optical disk master having a pitch size of 0.32 micrometers. However, Ohgo only discloses acrylic resin and polycarbonate resin as the only materials that can be used for the substrate. There is no teaching or suggestion that poly(arylene ether)/poly(alkenyl aromatic) could be prepared into substrates having the narrow pitch required by the instant claims. Furthermore, there is no expectation that poly(arylene ether)/poly(alkenyl aromatic) could be successfully used with the Ohgo disk master as Feist and Daecher only teach substrates having much larger pitch size. Accordingly, reconsideration and removal of the rejections are respectfully requested.

Claims 1-14, 16-21, 25, 27-31, 33, 35-42, and 44-45 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Feist, Daecher, and Ohgo, in view of Saito. Applicants respectfully traverse this rejection.

As discussed immediately above, the combination of Feist, Daecher, and Ohgo fail to render independent Claims 1, 42, and 44 obvious as there is no teaching of a poly(arylene ether)/poly(alkenyl aromatic) blend substrate having a pitch of about 0.05 to about 0.35 micrometer. Furthermore, there would be no expectation of success to use poly(arylene ether)/poly(alkenyl aromatic) to prepare a substrate having such an exacting pitch size. Saito does not remedy the missing teaching as Saito fails to teach or suggest poly(arylene ether)/poly(alkenyl aromatic) substrates. Independent claims 33 and 38 also require the poly(arylene

ether)/poly(alkenyl aromatic) blend substrate to have a pitch of about 0.05 to about 0.35 micrometer. Accordingly, reconsideration and removal of the rejections is respectfully requested.

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over United States Publication No. 2002/0197438 to Hay et al. (Hay), Daecher and Ohgo. Applicants respectfully traverse this rejection.

Hay is generally directed to a storage media having a radial deviation of less than or equal to about 1.15 degrees at a radius of 55 mm, wherein the storage media comprises a plastic substrate, an optical layer. a data storage layer, and a reflective layer (Abstract).

Independent claims 1, 42, and 44 require the substrate be made from a poly(arylene ether)/poly(alkenyl aromatic) blend substantially free of visible particulate impurities. Furthermore, these claims require the substrate to have lands and grooves comprising a pitch of about 0.05 to about 0.35 micrometer. It is our position that Hay, Ohgo, and Daecher, either alone or combined, fail to render independent Claims 1, 42, and 44 obvious.

Neither Hay nor Daecher teach or suggest a poly(arylene ether)/poly(alkenyl aromatic) blend substrate having a pitch of about 0.05 to about 0.35 micrometer. Hay does teach polyphenylene ether/polystyrene disk substrates, however, no pitch size is disclosed. Daecher only generally teaches polystyrene-polyphenylene oxide resins as one choice in a large laundry list of resins that can be used to form a plastic sheet (column 14). Daecher, however, fails to teach or suggest the very narrow pitch size that is required by the instant claims. The pitch sizes of Daecher is *significantly* larger than the required about 0.05 to about 0.35 micrometer of Claims 1, 42, and 44. One of ordinary skill in the art would not be motivated to prepare a disk substrate, prepared from a poly(arylene ether)/poly(alkenyl aromatic) blend, having a narrower pitch size than that disclosed in Daecher. There is no indication that such a blend would successfully be formed into disks having such stringent pitch dimensions.

It is noted that Ohgo does teach the preparation of an optical disk master having a pitch size of 0.32 micrometers. However, Ohgo only discloses acrylic resin and polycarbonate resin as the only materials that can be used for the substrate. There is no teaching or suggestion that poly(arylene ether)/poly(alkenyl aromatic) could be prepared into substrates having the narrow

pitch required by the instant claims. Furthermore, there is no expectation that poly(arylene ether)/poly(alkenyl aromatic) could be successfully used with the Ohgo disk master as Daecher only teaches substrates having much larger pitch size. Accordingly, reconsideration and removal of the rejections are respectfully requested.

Claims 1-14, 16-33, 35-42, and 44-45 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over either Feist or Hay, combined with Daecher and Ohgo, further in view of Ueda or Ito, combined with Ogawa. Applicants respectfully traverse this rejection.
As discussed above, Hay, Daecher, and Ohgo fail to render independent claims 1, 42 and 44 obvious as they do not teach or suggest a poly(arylene ether)/poly(alkenyl aromatic) substrate having a narrow pitch size. Independent claims 33 and 38 also require this limitation. Feist, Ueda, Ito, and Ogawa also fail to provide the required teaching. Ueda, Ito, and Ogawa are all directed to polycarbonate. Feist also fails to teach or suggest a poly(arylene ether)/poly(alkenyl aromatic) resin substrate having a pitch of about 0.05 to about 0.35 micrometer. Therefore, the Applicants respectfully request reconsideration and withdrawal of this rejection.

Nonstatutory Double Patenting Rejections

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-32 of copending Application No. 10/648540 (US 2005/0046056) to Dong, et al. in view of Feist, Daecher, and Ohgo.

As neither case has been issued or allowed, and since the claims are therefore not final in both cases, it is not possible to make any determination as to double patenting or obviousness at this time. Hence, withdrawal of this rejection at least until the present claims are allowed and the 10/648540 case has issued, is respectfully requested.

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-3, 7-

16, 18-24 and 26-106 of copending Application No. 10/648640 (US 2005/0049362), now U.S. Patent No. 7,041,780 ("U.S. 7,041,780"), in view of Feist, Daecher, and Ohgo.

All references will be made to the claims of U.S. 7,041,780 rather than the published application. Claims 1-55, 58-93 and 96-101 of U.S. 7,041,780 are directed to a method of preparing a polymeric mixture of a poly(arylene ether) and a poly(alkenyl aromatic). Claims 56 and 94 of U.S. 7,041,780 are directed to an article. Claims 1-56, 58-94, and 96-101 fail to render Claims 1-14, 16-21, 27-30, 42, and 44-45 of the present application obvious because they fail to teach or suggest a particular article, namely a data storage medium.

Only claims 57 and 95 of U.S. 7,041,780 are directed to a data storage medium comprising the polymeric mixture of poly(arylene ether) and a poly(alkenyl aromatic). However, these claims alone or combined with Feist, Daecher, and/or Ohgo fail to render the instant claims obvious as none teach or suggest a data storage medium having a substrate layer comprising a blend of poly(arylene ether) resin and poly(alkenyl aromatic) resin wherein the lands and grooves of the substrate comprise a pitch of about 0.05 to about 0.35 micrometer. Although smaller pitch sizes are taught by Ohgo for polycarbonate and acrylic resin substrates, there is no suggestion or motivation to use the material of Feist, Daecher, or U.S. 7,041,780 with such exacting pitch sizes shown with polycarbonate. Accordingly, the Applicants respectfully request reconsideration and removal of the double patenting rejection over independent claims 1, 42, and 44 and their dependent claims.

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-49 of copending Application No. 10/648647 (US 2005/0049333) to Buckley, et al., in view of Feist and Ohgo.

As neither case has been issued or allowed, and since the claims are therefore not final in both cases, it is not possible to make any determination as to double patenting or obviousness at this time. Hence, withdrawal of this rejection at least until the present claims are allowed and the 10/648647 case has issued, is respectfully requested.

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-29 of copending Application No. 10/648604 (US 2005/0046070) to Dong, et al., in view of Feist, Daecher, and Ohgo.

According to PAIR, an allowance has been counted on this case although it has not yet been mailed. Claims 1, 3-13, 15-27, and 30 are directed to methods of purifying polymeric material. Claim 28 is directed to an article generally and claim 29 is directed to a data storage medium comprising the polymeric material of Claim 1. Claims 1, 3-13, 15-28, and 30 fail to render the present application obvious because they fail to teach or suggest a particular article, namely a data storage medium.

Only Claims 29 of 10/648604 is directed to a data storage medium comprising the filtered polymeric material of claim 1. However, this claim alone or combined with Feist, Daecher, and/or Ohgo fail to render the instant claims obvious as none teach or suggest a data storage medium having a substrate layer comprising a blend of poly(arylene ether) resin and poly(alkenyl aromatic) resin wherein the lands and grooves of the substrate comprise a pitch of about 0.05 to about 0.35 micrometer. Although smaller pitch sizes are taught by Ohgo for polycarbonate and acrylic resin substrates, there is no suggestion or motivation to use the material of Feist, Daecher, or 10/648604 with such exacting pitch sizes shown with polycarbonate. Accordingly, the Applicants respectfully request reconsideration and removal of the double patenting rejection over Claims 1-14, 16-21, 27-30, 42, and 44-45.

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-49 of copending Application No. 11/151494 (US 2005/0233151) to Feist, et al., in view of Feist, Daecher, and Ohgo.

As neither case has been issued or allowed, and since the claims are therefore not final in both cases, it is not possible to make any determination as to double patenting or obviousness at this time. Hence, withdrawal of this rejection at least until the present claims are allowed and the 11/151494 case has issued, is respectfully requested.

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-81 of copending Application No. 11/101833 (US 2005/0180284) to Hay et al., in view of Feist, Daecher, and Ohgo.

The 11/101833 applications has been expressly abandoned. Withdrawal of the rejection is respectfully requested.

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-37 of copending Application No. 10/063004 (US 2002/0094455) to Feist et al., in view of Daecher and Ohgo.

The claims of 10/063004 are directed to data storage media, however the claims fail to teach or suggest a data storage medium having a substrate layer comprising a blend of poly(arylene ether) resin and poly(alkenyl aromatic) resin wherein the lands and grooves of the substrate comprise a pitch of about 0.05 to about 0.35 micrometer as is required by independent claims 1, 42 and 44 of the instant application. The 10/063004 claims combined with Feist, Daecher, and/or Ohgo also fail to render the instant claims obvious as none teach or suggest a data storage medium having a substrate layer comprising a blend of poly(arylene ether) resin and poly(alkenyl aromatic) resin wherein the lands and grooves of the substrate comprise a pitch of about 0.05 to about 0.35 micrometer. Although smaller pitch sizes are taught by Ohgo for polycarbonate and acrylic resin substrates, there is no suggestion or motivation to use the material of Feist, Daecher, or 10/922194 with such exacting pitch sizes shown with polycarbonate. Accordingly, the Applicants respectfully request reconsideration and removal of the double patenting rejection over independent claims 1, 42, and 44 and their dependent claims.

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-15 of

copending Application No. 10/922194 (US 2005/0064129) to Dong et al., in view of Feist, Daecher, and Ohgo.

It is noted that a Notice of Allowance has been issued for 10/922194. Claims 1-2 and 16-17 are directed to filtered polymeric material. Claims 3-10 and 18-19 are directed to methods of purifying a polymeric material. Finally, Claim 11 is directed to an article generally. Claims 1-11 and 16-19 fail to render Claims 1-14, 16-21, 27-30, 42, and 44 of the present application obvious because they fail to teach or suggest a particular article, namely a data storage medium.

Only Claims 12-15 and 20-21 of 10/922194 are directed to a data storage medium comprising the polymeric mixture of poly(arylene ether) and a poly(alkenyl aromatic). However, these claims alone or combined with Feist, Daecher, and/or Ohgo fail to render the instant claims obvious as none teach or suggest a data storage medium having a substrate layer comprising a blend of poly(arylene ether) resin and poly(alkenyl aromatic) resin wherein the lands and grooves of the substrate comprise a pitch of about 0.05 to about 0.35 micrometer. Although smaller pitch sizes are taught by Ohgo for polycarbonate and acrylic resin substrates, there is no suggestion or motivation to use the material of Feist, Daecher, or 10/922194 with such exacting pitch sizes shown with polycarbonate. Accordingly, the Applicants respectfully request reconsideration and removal of the double patenting rejection over independent claims 1, 42, and 44 and their dependent claims.

Claims 1-14, 16-21, 27-30, 42, and 44-45 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-20 of copending Application No. 10/986611 (US 2005/0129953) to Breitung, et al., in view of Feist, Daecher, and Ohgo.

As neither case has been issued or allowed, and since the claims are therefore not final in both cases, it is not possible to make any determination as to double patenting or obviousness at this time. Hence, withdrawal of this rejection at least until the present claims are allowed and the 10/986611 case has issued, is respectfully requested.

It is believed that the foregoing remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 50-1131.

Respectfully submitted,

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